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NOTES ON THE HISTORY AND PATHOLOGY OF SCARLATINA.

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HISTORY.—It has been asserted by a majority of medical writers, that scarlet fever is a disease of modern origin. Of the correctness of this opinion, however, we may well entertain a doubt. We find, in the most ancient medical records, allusions to fevers, attended with various cutaneous eruptions and appearances, which, though not in all cases minutely described, are yet sufficiently so to verify the existence of several diseases now claimed as of modern date.

From the time of Celsus, the history of scarlet fever, as well as all other diseases, is involved in obscurity, and we explore the darkness in vain for lights to illumine our path and direct our footsteps. In 1610 *scarlatina* prevailed epidemically in Spain, from whence it was believed to have spread to Italy, where it derived its name, *scarlatto*. In 1689 it appeared in London, and was minutely described by Dr. Morton. Sydenham, in his work on acute diseases, published in 1680, describes the simple scarlet fever in such a manner, that it is evident this was the only form of the disease then prevalent. He remarks, "The scarlet fever, though it may happen at any time, yet it most commonly comes at the latter end of summer ; at which time it seizes whole families, but especially children. At the beginning they shake and shiver, as in other fevers, but they are not very sick ; and afterwards the skin is spotted with small red spots : they are more frequent, and much larger and redder, but not so uniform as those of the measles ; they continue two or three days and then vanish ; after which some scales, like bran, are sprinkled over the body, and these scales come and go successively twice or thrice." He then gives directions for the treatment of this "name of a disease," as he terms it ; from all which it appears, that he was only acquainted with the simple variety of the disease.

Dr. Withering has left us a very complete history of the disease, as it appeared in his time ; though, like Cullen and Fothergill, he fell into the nosological error of making malignant scarlatina a species of cynanche, characterized by symptoms of debility and putridity, and an absence of all eruption. Dr. Clarke, who wrote a history of the disease, as it prevailed at Newcastle in 1778, contended for their identity, and establishes, beyond controversy, that they are the same disease, owing their origin to the same cause, and communicated by the same specific contagion.

In this country the scarlet fever has prevailed at different times since its first settlement, and occasionally with very great mortality. In the year 1735 it spread extensively over New England, as well as over the middle States, and thousands of children and many adults fell victims to it. In 1784 it again appeared, and spread over the larger portion of the northern States; since which time till the present it has prevailed in different sections of the country, either sporadically or epidemically, and assuming various grades of severity. From the year 1780 to 1800, scarlatina existed epidemically in this city, and in some seasons was very fatal. As there was no correct record of deaths kept in New York, anterior to 1800, it is difficult to ascertain the exact degree of mortality from any disease: but from the older practitioners, it appears to have been as fatal as at any period since. For several years anterior to 1817, the city inspector's returns contain no deaths from this disease. Consumption and typhous fever were the grand outlets of human life; and while the triumphs of the former have been increasing, from year to year, those of the latter have been still more rapidly diminishing, till at the present it is no longer dreaded.

It may be remarked, that the winter of 1834 was mild, and especially the months of January and February, in which occurred an unusually large number of deaths. Thermometrical and barometrical tables, however, throw but little light on the prevalence of this, as well as many other diseases; and from a long and attentive examination of the subject, I cannot ascertain that the sensible atmospherical variations have any considerable influence on the disease. In fact, the laws by which it is controlled are absolutely unknown to us, and probably will ever remain so. During the past winter the disease has proved much less fatal.

Etiology.—The etiology of scarlet fever, like that of all epidemic disorders, is involved in much mystery. Medical philosophers have indulged in much speculation on the subject, but after all, have left it where they found it. It is a pretty general opinion that the disease arises from a specific contagion, and is either generated in the atmosphere itself, or from a miasm emanating from the bodies of the sick. Some believe it to spring from a peculiar, epidemic constitution of the air, or an atmospheric temperament, predisposing all who inhale it to a common morbid affection, or exposure to certain exciting causes. We have no satisfactory proof that the disease arises from any miasm, *sui generis*, generated in the air; but that it is caused by emanations from the bodies of the sick, and favored in its spread by some unknown atmospherical temperament, there can remain but little doubt. Dr. Percival, in his commentary on Good's Nosology, speaks of scarlatina as having been imported into Dublin in a box, containing children's toys from London, and remarks, "I have traced the progress of contagion from England, and believe it loses something of its malignancy by the way." Dr. Good observes, "that rosalia (scarlatina), under every form, is contagious, and sometimes epidemic, is now admitted, without a question." Some of our popular American authors express a doubt of its contagiousness, while at the same time they caution us, as the safest course, to act in the belief that it is communicable. I shall detail a few facts, and leave the inference to be drawn by the reader. I am aware this is a point on which *mathematical demonstration* is not to be expected.

A few months since, an aged lady of sixty or upwards, watched one night with a grand child, sick of malignant scarlatina—she held the child much in her arms and received the breath in her face—she returned home soon after the death of the child, which happened the next day, and the succeeding night was herself taken with a chill, vomiting, &c. She had a very severe attack of the disease, with much affection of the throat and skin, and on recovering, the nails of her fingers and toes all came off. She lived about one mile from her son-in-law, and believes she caught the complaint by holding the child in her arms.

About six weeks ago, a little girl sickened with scarlet fever in a family where there were three other children. After the eruption had appeared, it was thought proper by the parents to have the other children removed from the house, although they had been much exposed in the sick room. They were accordingly sent to different places, from half a mile to a mile distant. In about a week from the time of removal, one of them sickened; the next day another, and the same day the third, and all had a severe attack, but recovered.

I can call to mind four instances, which I have witnessed the past winter, in which the mother sickened with the disease, after having attended one or more of her children with the same complaint, when the other adult members of the family escaped.

As to the vexed question, whether scarlet fever occurs twice in the same subject, my own observations compel me to adopt the affirmative. I have treated several well-marked cases of second attack, in which there could be no doubt of the identity of the disease; one of which I attended lately, and will relate.—I. S., aged 13, had a severe attack three years ago, and was attended by the late Dr. Quackenbush; his mother described his throat as being very sore, and his skin as red as a "lobster's shell," to use her own expression. A few weeks since I was called to visit him, and found him with inflamed tonsils, headache, nausea, &c. The next day the efflorescence appeared, and he went through a regular course of the disease. Other similar instances could be given. The fact, however, seems sufficiently well established, that though the susceptibility of the disease is to a considerable extent weakened by one attack, it is not eradicated, as may perhaps be said with respect to smallpox and measles.

Like other epidemic diseases, scarlatina is aided in its extension by various contingent circumstances, the most important of which are, atmospheric vicissitudes, impure air, innutritious food; and in adults, anxiety of mind, watching, &c. Children of the wealthy, who are brought up with delicacy, and are housed with particular care, lest "the winds of heaven may visit them too roughly," and those of the extreme poor, who suffer from cold and hunger, and sleep in filthy, ill-ventilated and crowded apartments, seem to be nearly equally exposed to this disease.

Pathology.—Scarlatina has been so long considered and treated as an essential fever, in which the inflammatory affection of the throat bears to it the same relation as buboes do to the plague, that I expect to be charged with heresy, or *medical schism*, if I undertake to controvert this opinion; but believing, as I conscientiously do, that this doctrine, though sustained by high authority and illustrious names, is founded in error, and leads to vacillating and improper treatment, I shall present a few considerations, which ought to influence our minds to a greater or less extent, in coming to a correct position.

In all cases of scarlet fever, as far as I have observed, there is, at an early period, an inflammatory affection of the mucous membrane of the mouth and fauces, involving the œsophagus, stomach, and occasionally the trachea. When first called to a patient in this disease, long before the efflorescence has appeared, or even re-action has taken place, we find the papillæ of the tongue red, swollen, and projecting through the white fur, while the whole lining of the mouth and fauces is preternaturally red and sensible. The tonsils are enlarged and intensely red; swallowing and deglutition are performed with difficulty; while the gastric irritability and tenderness on pressure at the epigastrium, prove that this hyperæmia is not confined to the upper portion of the mucous membrane. This derangement of the circulation appears to be the first link in the morbid chain, and the subsequent phenomena, as they successively manifest themselves, owe their character to the nature and intensity of the primitive affection.

The existence of a direct sympathy between the skin and mucous surfaces, is so generally acknowledged, as hardly to need illustration. Daily observation shows, that when one is excited to inordinate action, the other takes on the same excitement; and again, when one falls below the healthy standard of vitality, the same relaxation occurs in the other. Various phenomena illustrate this connection; such as the pimples and blotches on the face of the drunkard; the parched and shrivelled skin of the dyspeptic; eruptions caused by poisonous ingesta, especially some species of shell-fish. Begin observes—"The skin is connected with the alimentary canal by such close sympathies, that its inflammations are most generally the result of gastro-intestinal excitements. In the acute stage, the eruptions accompanying scarlatina, rubeola, variola, varicella, are constantly preceded by an inflammation of the digestive canal: and in the chronic stage, herpetic, and other kind of eruptions, as well as deep erosions of the skin, are under the influence of the same affection. In the gastro-enteritis, the heat, dryness and acrimony of the skin, are in a direct ratio with the intensity of the irritation, and with its effects on the organism."

In the exanthematous fevers, especially smallpox and measles, the phenomena manifested during life, as well as the autopsic appearances, prove the existence of inflammatory engorgements of the internal mucous membranes. That evidence of this does not always appear after death, does not by any means disprove the fact, for as the scarlet efflorescence from the sanguinolent injection of the external vascular reticulated tissue vanishes soon after the cessation of life, so we may safely conclude that a similar change occurs in the internal capillary system. This opinion is confirmed by the very able report of cases of variola, drawn up by Dr. Geirhard, of Philadelphia, witnessed in the *Hôpital des Enfans Malades* of Paris, published in the twenty-second number of the American Journal.

Though serious vestiges of disease were not always witnessed in the mucous membrane, yet the arborizations, softenings, discolorations, &c. frequently met with, show very conclusively that the deviations from the healthy structure in this tissue, were neither accidental nor trifling.

From observation and autopsic results, we arrive then at the conclusion, that the essential phenomena of scarlet fever are dependent on an erythmoid inflammation of the mucous membrane of the upper extremity, principally of the digestive tube, and propagated by sympathy to the external tegumentary tissue. In *simple* scarlet fever, this inflammation is less intense, and from the slight disturbance of the circulatory system, re-action is speedily established, and the whole reticulated tissue of the skin becomes injected. In the *anginose* variety, there is a higher grade of inflammatory action in the same structure, manifested by greater disturbance of the vital functions, and often terminating in serious lesions of some important organs. Unless such lesions early occur, the capillaries of the skin become injected, and we have the same efflorescence as in the simple form of the disease. In this form of scarlatina, the inflammation, after attacking the tonsils, &c. often extends to the submaxillary and parotid glands, which either suppurate, or remain a long time indurated and swollen. In the *malignant* scarlet fever, as it is termed, we have a still more intense degree of inflammation rapidly terminating in ulceration, and, unless speedily arrested, in death. Those pathologists who consider this disease an essential fever, and the throat affection an accidental circumstance, object, that the constitutional disturbance is not always proportioned to the degree of local disease. To this we might reply, by referring to other disorders, where the cause, as well as the original lesion, are alike trivial, when compared with the magnitude of the result. For example : tetanus from the prick of a needle ; hydrophobia from the bite of a rabid animal ; pain from a decayed tooth ; fainting from the sight of certain objects ; and death from a moderate blow over the epigastrium, &c. Besides, much is to be allowed for constitutional differences. In a person of irritable temperament and delicate constitution, an irritation, which in one of an opposite character would induce a train of symptoms of a mild nature, often proves fatal.

If we suppose the specific poison which gives rise to scarlatina to be introduced by the stomach into the system, it should, like other poisons, first occasion irritation of the gastric passages ; all the sympathies which connect this important organ with the other viscera are awakened, producing pain in the head, accelerated action of the heart, dry and burning skin, suspension of the secretions, terminating, in favorable cases, in a depurating process to eliminate the noxious cause, by stool, urine, perspiration, or salivation. When the action of the morbific cause is moderate, we actually see such critical discharges within from twelve to forty-eight hours ; if more severe, the contest is often protracted and uncertain. But it has been found by actual experiment, that it is not necessary that the first impression be made upon the gastro-intestinal mucous membrane; the same phenomena will result, if the specific poison be introduced by absorption from the skin, or through the medium of the lungs. Magendie and Orfila have both established this fact, by throwing different substances into the veins, and injecting them into the cellular tissue. Broussais remarks—" It is always by an irritation primarily developed on the *digestive surface*, propagated to the brain, and to the apparatus of ganglional nerves, and accompanied by the most usual symptoms of gastro-enteritis, that nature prepares the depurative evacuations, by means of which the elimination of foreign unassimilated bodies is accomplished.—***United States Medical and Surgical Journal, abridged.***

OBSERVATIONS ON THE DISEASES OF PRINTERS.

BY M. CHEVALLIER.

A GREAT number of philanthropists and medical writers have bestowed considerable attention on the diseases by which the working classes are afflicted; but when we read the works which are specially dedicated to this branch of medicine, we cannot help being convinced that many have been written with a spirit of exaggeration which almost renders them useless, while others are founded upon facts too carelessly compiled, or not sufficiently numerous.

Thus, if we consult the otherwise excellent work of Mr. Thackrah, we find the diseases to which printers are liable (p. 42) despatched in a few words, and the term of fifty years assigned as the maximum of longevity for compositors, although it is notorious that many of them reach sixty, seventy, or even eighty years of age.

It is only by having recourse to the workmen themselves or their employers that we can expect to verify the assertions contained in authors. Such has been the method pursued by M. Chevallier; without being discouraged by the unsuccessful efforts of those who preceded him, he obtained at length about 33 written answers to 400 letters which he addressed to the different master-printers of Paris. He also examined verbally a great number of workmen, apprentices, &c., and from these two sources drew the materials which compose the essay now before us.

If we are to believe authors, the profession of printer is unhealthy, 1st, as the workmen are subject to painter's colic and paralysis; 2dly, as determining various other diseases. After a minute and very laborious investigation into the different assertions put forth by writers upon this subject, M. Chevallier concludes that the profession of printers is by no means so unhealthy as has generally been imagined. The eyesight of the compositor is very often injured, and many of them are compelled to wear conserves at the age of 45; but amaurosis only attacks them accidentally. As to the question whether printers are subject to attacks of colica pictonum, the answers obtained by M. Chevallier were contradictory: thus, twelve master printers averred not having observed colic of this description; however, a still greater number attested the existence of this disease in their workshops, and the accounts given by the compositors themselves left little doubt on the subject.

The colic which attacks printers depends in all probability on the introduction of a metallic oxide into the economy; the dust of the press-rooms contains a quantity of this metallic powder, and it is a curious circumstance, confirmed by a great number of witnesses, that it is almost impossible to rear up cats in these establishments. The prevalence of painter's colic, however, is much less extensive now than formerly, from a difference in the composition of the characters, and from a greater cleanliness of the workmen. Are printers subject to diseases of the chest? This question has been examined with great care by the author, who concludes that printers are not more subject to pectoral disease than any other class of workmen: cases of paralysis are also rare, and chiefly observed in the old or intemperate workmen. In a word, if we are to take the evidence given by the masters, a working printer who is sober, and of steady habits, is not subject to any disease that can be attributed to the profession which he exercises.

Mr. Thackrah, in his work on the diseases of mechanics, &c., gives it as his opinion that scarcely a single printer can be found beyond the age of 50. This may be the case in the large towns of England, but it is not applicable to Paris. In twenty-three printing-offices the ages of the workmen were examined by M. Chevallier ; in twenty the ages varied from that of the apprentices up to fifty, sixty, and seventy-five ; in three only the oldest workman was not beyond 40 or 45 years of age ; in one office, amongst 35 or 40 workmen, twelve were between 45 and 70 years of age ; in another there were twenty from 40 to 60; and the master of a third declared he had himself known more than fifty workmen beyond the age of 60. During the year 1831, twenty-five printers died in the different hospitals, &c. of Paris, whose ages varied between 55 and 78, and the author quotes the names of fourteen workmen actually employed of 70 years of age, and one of 80. The celebrated printer M. Didot had a workman who reached the age of 86, and M. Firmin Didot another who worked to the age of 84.—*Ann. d'Hygiene Pub.*

REMARKS UPON FEBRILE AND OTHER DISEASES.

Miscellaneous inquiries and remarks upon febrile and other diseases, with references to various cases, in which there was a similar state of system produced, from different causes, and in patients of different habits: viz. two cases of death from Inanition ; a case of Puerperal Mania ; two cases of attempted Suicide, from Intemperance ; two cases of death from dry Mortification ; and a case of Tetanus.

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THE human frame is composed of life and death. As it relates to the blood, life is in the arteries, and death in the veins. As it relates to air, life is in its inspiration, and death in its expiration. As it relates to the stomach, life depends upon aliment there ; its entire absence, for a protracted period, although arterial blood and pure air may be present, is certain death. Two female patients, adult women, died from inanition. One had paralysis of the œsophagus, the other a tumor of the same organ, ending in ulceration through the neck. Nature would not consent to a long continuance of life by the use of injections ; doubtless because the nourishing matters, thus conveyed, could not reach the stomach and have the aid of the gastric juice.

When venous blood predominates over arterial, to a very great degree, death ensues in the aged, and fever or some other disease in the young. The change of blood from arterial to venous, is a spontaneous animal source of disease. Bichat speaks of the fatal consequences of venous blood getting into the arteries. What we know of the cause of diseases, seems to point to animal deterioration. There is no putrefaction without water, and all vegetables contain water, and all water contains animals. But, although all vegetables contain animal matters, yet all animal matter does not contain vegetable matter. The decomposition of pure animal matter generates ammonia, which is a wholesome or harmless effluvia. But the presence of vegetable matters prevents its evolution. Hence, writers have assumed vegetable putrefaction to be noxious, and that animal putrefaction is void of harm. That never-failing source of disease, *marsh miasmata*, is made up of a decomposed combination of animal and vegetable substances. Liewenhoeck tells of animals in water, so small that hundreds of them together are not so large as a grain of sand ; and these minute creatures, by means of the hydro-oxygen microscope, can now be seen by other eyes than his.

To the fact that air from marshes contains more animalcules than other air, must be imputed its deleterious effects upon the human system, as they thus enter the pores of the skin, the stomach, the lungs, and reach the brain and heart, and abdominal viscera. Lancisi, after enumerating the inhabitants of marshes, such as toads, frogs, flies, May-bugs, beetles, earwigs, spiders, leeches, and water-witches, refers to Virgil and Politian, in relation to the species of *culex*, called musquitoes, as the offspring of moisture and water. He likewise refers to Pausanias, respecting the innumerable clouds of these insects, generated in a certain muddy and choked up stream, and to their so annoying the inhabitants of a certain Grecian city, called *Myon*, that the population were forced to quit it, and flee to *Miletus*. If, therefore, water generates such millions of visible insects, and if every drop of water, in a marsh and stream, contains upwards of 40 animals, as the hydro-oxygen microscope proves, we must undeniably admit that water is chiefly made up of animals, animal eggs, and exuviæ ; and that, as is intimated by Lancisi, marsh miasmata is "organic animated effluvia." Now the eggs of the musquito, which are deposited in water in such immense numbers, are hardly if at all visible by the most powerful microscope, whilst the eggs of microscopic animalcules themselves, although reason teaches that their numbers must be also immense, cannot be reached by the most powerful apparatus yet discovered.

I believe that it was Mercurialis* who first intimated that the plague was carried from one place to another by flies, which are observed to alight and feed on the saliva and offal of the sick and dead. We think, at any rate, that these domestic insects are implicated in some mysterious instances of the origin of smallpox.

In all fevers, whether the pulse be feeble, or very full, strong and hard, the muscular strength is always diminished ; and this shows that the vital and voluntary nerves are governed by different powers and principles—that they are moved by different parts of the brain—or if by the same part, that their different course and endings very materially alter the mode of action of that great primary moving power. Increased energy and action of one part of the system, is accompanied by diminished energy in another part. Arterial action, too highly exalted, is connected with muscular debility, indigestion, and suppressed perspiration. In like manner, a diminution of action and energy in one organ, tissue, gland, viscus, or evacuation, has increased momentum, or quantity, in some other, perhaps a distant one. In epidemic cholera, the urinary secretion is diminished immensely, or totally annihilated, whilst the discharges from the first passages are increased upon a scale so vast that destruction ensues. In hysteria, the muscular motion and urinary secretion are increased, whilst the peristaltic motion, and alvine evacuations, are diminished. In febrile affections, the peristaltic motion and the alvine and urinary discharges are diminished, whilst the quickness of the pulse and of respiration are increased.

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* Mercurialis was an eminent Italian physician, and died in 1606.

Inordinate nervous excitement sometimes ensues from great and dangerous hemorrhages. The nervous system, collecting and concentrating all its energies to support the threatened powers of life from loss of blood, over-acts, and the consequences are alarming, and sometimes fatal. This is an instance in which one system re-acts for another system—the nervous system aiming to do its own offices and also that of its neighbor. A case of this kind merits notice. Mrs. H. a married lady, began to loſe blood from the uterus, at the end of the eighth month of pregnancy, owing, as it afterwards appeared, to the adhesion of the placenta, not directly over, but near, the *os uteri*. This hemorrhage continued at intervals for a month and a day, when parturition, of a dead child, took place. But re-action did not commence until the further loss of blood, consequent upon delivery. She then, about 48 hours after that event, became, not merely delirious, but ravingly maniacal; with a very full pulse, and withal so resisting and active, that had not her previous hemorrhage been known, the lancet would have been used, and I am still of opinion that it might have been used, as a dernier resort, with benefit. We suppose that in this, and similar cases, the inordinate cerebral excitement arose from what blood there was remaining in the vessels being sent with such force to the head, as to produce engorgement, perhaps lesions of the brain, and thus to destroy our highly valuable patient. It has been proposed to imitate nature in this respect; that is, to rally a feeble system by producing re-action by bloodletting. But from the result of this case, we should consider that the arterial system, thus brought into re-action, might over-act; whilst, on the other hand, that, if no re-action was produced, it would be but adding to the existing dilemma.

In connection with this case, we will notice two others, entirely dissimilar in all respects, except one, viz. the over-action of debilitated systems. E. Y. a man of about 45, had debilitated his system by intemperance to such a degree that he seemed a fit subject for delirium tremens; instead of which, his powers were wont to rally, and produce such a degree of morbid strength that it was difficult for his attendants to control him, although pale and feeble in his looks. Occasional mania ensued, and sometimes fits of epilepsy; and although a mild clever fellow by nature, he attempted in these paroxysms to injure others, and actually injured himself, for he twice cut his own throat, and once amputated his penis with an axe, thinking, as he said, that it was a piece of tobacco. His attempts at suicide failed in both instances, owing to our timely arrival and arresting the hemorrhage. Consumption at length did for him what he had failed of doing for himself.

Mrs. B. in similar states of system, and from the same cause, was wont to whip her pretty little adopted daughter most unmercifully, and one day hung herself up with a handkerchief to her warping-bars. She was not quite dead, however, upon our arrival, and our efforts at resuscitation, in this instance, were availing. She recovered, and became a better woman, although I believe she did not entirely quit her pernicious potations.

We will next mention two cases of disease dissimilar to all the foregoing, but similar to each other, and in men of habits diametrically opposite. We cannot, therefore, refer one of them to errors in diet, errors in drink, or to any predisposing regimen or exposure. We must, then, place the malady to the account of a spontaneous change in the animal fluids; in fact, to too great a predominance of venous blood over arterial, and a consequent debility of the solids. Both lived in the country, and both pursued the salutary occupation of agriculture, upon farms of fine fertile soil, located where the air was pure and the water good. They were on adjoining farms, and next door neighbors. Both died of dry mortification, and of the same part of the body. The first was a man aged 59, who had long been a drinker of ardent spirits, in pretty large quantity—at best an intemperate man, although perhaps seldom or never intoxicated. His illness was not long; the disease of which he died began in his toes, and proceeding upward involved the whole leg, which became of a dark purplish hue, and was emphysematous.

The other case was that of Mr. M. aged 28, and being very peculiar as to the age and several other circumstances, will merit a more particular and protracted notice. A case of dry mortification, in one so young, never before, nor since, occurred in our practice, nor do we know a similar one on record. Mr. M. had always been temperate, and for the last three years of his life entirely abstinent. Yet, what was surprising, and contrary to all our previous theories and to the doctrines of our teachers and authors, he could not, during his illness, be made to feel the effects of the most powerful stimulants. Abstinence had not rendered his system more susceptible. There was no accumulation of excitability; or, if there was, it was not possible to excite it. A similar deviation from what was supposed to be an established law of zoonomy, the writer knows not where to find. As those entirely abstinent from ardent spirits do still occasionally become our patients, everything connected with the diseases of a class so meritorious should receive attention and publicity.

From the first settlement of this country, whether the habit was brought across the Atlantic by the pilgrims, or by succeeding emigrants, or contracted on this continent, the use of spirituous liquors seems to have been known. In the wars with the Indians, preceding the revolution, and in that separating struggle of the infant republic from the womb of the mother country, also in agricultural life, in time of harvesting hay* and grain, we read and hear of the use of spirituous liquors, or "strong water." A new era, as it relates to the New World, is that of their total rejection. As it relates to their use, their abuse, and their total rejection, the medical philosopher will ever feel a deep interest. As it relates to the health of the community, and their crimes and morals, the professions of law, medicine and divinity, and the public at large, have all a concern deep and abiding.

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* Mr. M. was seized during hay harvest, July, 1830.

The attack of Mr. M. began with pain in the toe, next the great toe of the left foot, with the severity of the felon or paronychia. On our first visit, the integuments of this toe presented a dark, swollen appearance, and no doubt existed of matter, present or forming, in the periosteum. An incision was therefore made, quite to the bone, with relief of the pain, and with the evacuation of healthy pus. Next morning, however, the lips of our incised wound presented a purple hue, and had a gaping appearance, indicating the present or approaching state of a loss of tone in the system, and an incipient sphacelation of the part. Afterwards, the other toes, in rapid succession, died, without any pain at all, which was an unlooked-for occurrence—the color not changing. The white mortification of Quesnay will probably here occur to the learned reader ; and, also, the observation of an author more recent, whose idea upon this subject is, that as death occurs suddenly in the whole frame, it may also suddenly occur in a part of it. But in all these cases, and in those described by Pott, there were vesicles or a detachment of the cuticle, which in this case had no existence. One day, when dressing the affected toe, I observed a pallid death-like appearance of the great toe of the same foot, of which he had not at all complained. I pricked it with the sharp point of my probe, on its under surface, which he did not feel, and I continued to push the instrument forward, through the skin and through the flesh, nearly or quite to the bone. He did not flinch, nor feel ; the toe was entirely dead. The other toes, the foot and the leg, became involved in the same gangrenous process, but without pain or much uneasiness. The case, as a whole, may be viewed as one of systematic affection, manifesting itself locally ; a death-like process, from debility of the heart, and predominance of venous blood, presenting a similar phenomenon, in the animal system, to that which is seen in trees, which begin to die first in their extreme branches. Mr. Pott found dry mortification more frequently in great eaters than in free drinkers. But my patient was temperate in all things—a young, wealthy, thriving farmer, of correct and exemplary habits. He had slight hebetude at first, but not very definitely marked for more than a few words. He died delirious, about four weeks from his first seizure. His constitution was good, nor did I learn that he was ever before seriously ill of any disease whatever. His system appeared to have lost all susceptibility to remedial excitants ; as a proof of which, I may mention that for the last ten days of his life he took a glass of ardent spirits, by direction, every two hours, with other stimulants in full doses, and yet he was never excited. Had he drank a glass of water, instead of spirits, he might, or might not, have lived as long as he did ; yet by neither pulse nor person, could any one have told the difference.

This young man's case being thus peculiar, the question arises, how a system, thus unsusceptible to the most powerful stimuli, may be brought to respond to their power ? Would bloodletting, and the exhibition of alkalies, have aided in achieving this important end ? As to the former, I had determined, upon my second visit, the day after opening his toe, to have resorted to it, for he then, but then only, complained of a pain in his side. But upon raising himself up in his bed to undergo the operation, he became so faint that I thought it improper for him to lose blood, and it was omitted. A blistering plaister was applied to the pained part, and it drew well. But, as a proof of the torpor of his system generally, and as an evidence of the improbability that amputation of the leg would save the patient, if it had been performed (it being mentioned in consultation), I may mention that he did not feel it draw, nor did he make any complaint or appear to feel the cuticle while it was picked and pulled off, after it had drawn. He never afterwards complained of pain in his side, nor in the affected limb, nor indeed in any part. The limb died from the toes to the knee, without inflammation, pain, re-action, or resistance. Yet, strictly speaking, it could hardly be said to have mortified, unless the term *white* mortification is allowable, for it retained its natural color, or perhaps was rather paler than natural. We may here observe, that the gaping, livid, inelastic appearance of the toe first affected, alarmed me at my second visit, and, therefore, no time was lost in applying and administering those invigorating and antiseptic remedies which seemed best adapted. The counsel and advice of two of the most eminent surgeons and physicians, in this part of the country, was also had, who repeatedly saw my patient. The carrot poultice, the fermenting poultice, the nitrate of silver, the bark, and baptisia, were all freely used externally ; and wine, bark, opium, quinine, alcohol, and piperine, internally. The patient had very little febrile affection ; none at all by pulse, no thirst, and very little fur on the tongue. But in reviewing the case and the treatment, we have to reflect and to regret that calomel, or the blue pill, was not used, so as to excite ptyalism ; or that this had not been effected by rubbing in strong mercurial ointment upon the affected parts. By the system having thus been made to feel the effects of a powerful mercurial excitement, it might have afterwards felt other stimulants. By being artificially excited in one part, it might of itself have rallied, or have been made to rally, in other parts. We have before adverted to the tendency of the system, when depressed in one part, to have an increase of action in some other part. This case, however, did not appear to observe that law—the whole tenor being depression without re-action. Nature, by establishing the law of re-action, acts on a conservative principle ; her aim being, that *life*, which consists in *motion*, should not cease in the whole system. This is often a successful, and always a noble effort of the *vis medicatrix*. When, therefore, disease is sinking the whole corporeal frame, and nothing of this kind is done by nature, *art* should interpose. And if art cannot rouse the sinking powers of life generally, it should, by producing catharsis, emesis, vesication, or salivation, rouse them locally. We know, however, that increase of action is not always increase of strength. But the paramount indication is, and ever should be, first to preseve life. To increase strength is a great, but still a secondary indication.

We have more in view, in these remarks, than this individual case, whose parallel may possibly not occur again. We think that the principles involved in this part of our inquiries will apply to fevers, and all other diseases, where debility and torpor, and lack of re-action and energy, are present. And we cannot leave this part of our subject without some further remarks upon bloodletting. We can easily conceive that the heart, the lungs, the brain, and the arteries, may all be embarrassed by too much venous blood. Too much blood in the veins, lacking oxygenation, may therefore be considered of the nature of a pernicious foreign fluid. But to let blood, when the indication exists in the veins alone, and not in the arteries at all, certainly involves a point of practice both equivocal and delicate. The turgescence of the venous system, the interrupted action of all or most of the important organs before enumerated, and especially the failure of all other remedial agents, may, however, possibly sometimes justify the practice. And it may possibly occur to others, as it does to ourselves, that we have seen effects decidedly good from the evacuation, when we have adopted it after very great hesitancy. When it is considered that in venesection we draw off venous blood only, less apprehension exists of pernicious consequences, in doubtful cases. Alkalies, iodine, and neutral salts, by fitting the system to be acted on by other medicines, and especially by aiding in the process of oxygenation, are remedies which ought not to be overlooked. Dr. Barry, of the British army, failed of curing tetanus by opiates ; but at the suggestion of Dr. Ferguson, his superior medical officer, by first giving liberally of soda, his success with his former remedies (opiates) was complete. By Dr. Ferguson's advice, he gave it in doses of a drachm. I recollect giving gradually, but in a short time, 92 grains of calomel, to a patient in tetanus, with the design of producing salivation. But although it was retained, and the patient recovered, it entirely failed of affecting the salivary glands in the least, or even of producing mercurial fetor. The same patient took very largely of opium and laudanum, without much apparent effect. An incision was therefore made above the wound (which was made by a pitch-fork near the toes), and every fibre cut off quite to the bone. This artificial wound was then filled with hot spirits of turpentine. In such a case, at the present time, we should rely much upon soda and iodine, as calculated to fit the system to be acted on by other remedies. In tetanus, the loss of action to which we have repeatedly alluded manifests itself in the absorbent system, whilst there is a new and often fatal action going on in the muscles, involuntary, as well as voluntary, and in the whole nervous system.

Our successful cases may be suffered to pass, without much inquiry or remark ; but when we lose a patient, and especially such an one as was Mr. M., in the prime, or rather bloom of life, and with a disease so singular, we ought to both inquire and be inquired of. As before noticed, should we have another similar case, we should try a salivation. But it is possible that some one else may be able to point to a mode still more judicious.

We have thought, and. I believe, before remarked, that the British naval practice, that of having a court of inquiry upon every commander who loses a ship, let his conduct have been never so valorous, and his exertions never so strenuous and well directed to save her, might be well imitated in medical practice. A medical court of inquiry upon every physician who loses his patient, would stimulate exertion and elicit information.

JOSEPH COMSTOCK, M.D.

P. S.—I trust, Mr. Editor, that it is unnecessary for me to hint to you what to do with my communications if they are too frequent or unworthy the public. The fire, unlike the press, tells no tales.

Lebanon, Ct. July 4th, 1835.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JULY 22, 1835.

THE USE OF FRUIT.

As various kinds of fruit are beginning to make their appearance, and as no inconsiderable amount of disease is usually imputed to their agency at this particular season, it may not be inappropriate for physicians to institute some inquiries in relation to their supposed deleterious effects on the health of people of different ages and conditions.

We are familiarly acquainted with the prejudices existing against the free use of our domestic fruits, but very much question whether they have ever operated so unfavorably as is generally believed. It would be quite as philosophical to discard bread stuffs, the various leguminous productions of the garden, and the meats offered in the market, as to interdict the rich fruits which nature has scattered around us. If a careful register were made of all the deaths arising from excess in eating these two species of food, it is quite probable as many would be found attributable to one cause as the other. Eating and drinking have become altogether too artificial: people consult their books oftener to discover how, when, and what sort of a meal should be taken, than to ascertain the state of their finances. Life is thus reduced to an unnatural scale, and the capacity of the stomach measured as a tide waiter would guage the dimensions of a hogshead, instead of following the simple indications of hunger, which makes no dangerous mistakes under ordinary circumstances, in well regulated society. There is a vast difference between gorging beyond the ability of the stomach to relieve itself, and satisfying the cravings of appetite. Were an individual never guilty of any excesses, he would be exempt from the penalty invariably imposed on the breach of any law of the animal economy.

Instead, therefore, of standing in any fear of a generous consumption of ripe fruits, we regard them as positively conducive to health. The very maladies commonly assumed to have their origin in a free use of apples, peaches, cherries, melons, and wild berries, have been quite as prevalent, if not equally destructive, in seasons of scarcity. All naturalists will testify to the importance of the fruit season to the lower animals, particularly to birds. When there is a failure, or an insufficient supply, the feathered tribes are less musical, less numerous, and commence their migrations much earlier, than when amply supplied with the delicate nutrition designed for them at certain periods of the revolving year.

In the scheme of creative wisdom, the indications are clearly manifested that man is omnivorous ; and it was not until muzzled by the opinions of one, and perplexed by the ridiculous hypotheses of another, touching the subject of his food, of which he is himself better qualified to judge than the most learned physician in christendom, that he relinquished the faculty of discrimination implanted in his nature, to become the football of those who raise themselves into a short-lived notoriety by giving to unfounded theories the character only belonging to well-established facts.

There are so many erroneous notions entertained of the bad effects of fruit, that it is quite time a counteracting impression should be promulgated, having its foundation in common sense, and based on the common observation of the intelligent. We have no patience in reading the endless rules to be observed in this particular department of physical comfort. No one, we imagine, ever lived longer, or freer from the paroxysms of disease, by discarding the delicious fruits of the land in which he finds a home. On the contrary, they are necessary to the preservation of health, and are therefore caused to make their appearance at the very time when the condition of the body, operated upon by deteriorating causes not always understood, requires their grateful, renovating influence.

THE LATE DR. CHARLES MACOMBER.

The death of this esteemed physician, which took place at his residence in Marshfield, on the 16th of June last, was recorded in this Journal a few weeks since. The No. for June 10 contains an interesting communication from the pen of Dr. M. on Phthisis Pulmonalis, which was written while confined to his room by his last sickness. For the following sketch of his life and character, we are indebted to one who was intimately acquainted with him.

In the death of Charles Macomber, M.D. the community to which he more particularly belonged has suffered a severe privation, and his particular friends an irreparable loss. Seldom has one been arrested in a more successful career of active and extensive usefulness.

Dr. M. was born in Marshfield, in July, 1780. His youth was marked with promise and with a peculiar sobriety. The development of his mental powers fully justified his friends in their anticipations of his eminent future usefulness. He was educated at Harvard University, where he was distinguished for an unremitting application to his studies and for his literary acquirements, and still more for a correct and amiable deportment, which secured the affectionate esteem of his cotemporaries and the confidence of the government. He was graduated in 1799, having received the honors of the university and acquired the love and respect of his instructers. He chose the healing art for his employment in life, and was inducted into his profession under the auspices of Gad Hitchcock, M.D. of Hanson, a distinguished physician of that day, and whose eldest daughter, a very amiable and pious young lady, he afterwards married. The soothing attentions and devotion to her husband which she ever manifested, contributed greatly to sweeten the toils of his profession and alleviate oppressive cares and duties.

Dr. Macomber was distinguished in social life for the uniform uprightness of his conduct, his inflexible integrity, and for the correct performance of all the relative duties. As a son, a brother, husband, father, friend and neighbor, he was exemplary. He conciliated the cordial attachment and affectionate esteem of all with whom he came in contact. He preserved a studious habit through life ; he read almost every scientific work as it issued from the teeming press, but was more particularly fond of such as tended to illustrate and elucidate the principles of his profession. Whatever he read, he digested and made it his own. He had a peculiar faculty of extracting from it all that was calculated to nourish the intellect and enlarge the sphere of his knowledge, and was ready on every suitable occasion to produce it, and bring every new thought or new theory to the test of experiment. He possessed a very philosophical and inquiring mind, strengthened by constant culture and the habit of thinking and reflecting much. His acute and discriminating judgment was seldom deceived in detecting the occult and latent causes of disease, and he was equally successful in applying a remedy. This enabled him to excel as a physician, and secured the love, respect and confidence of his patients and their friends to an unusual degree. In his attention to the sick he was unwearied, was patient of incessant labor, and, when duty called, the storm and sunshine were both alike to him.

Dr. M. was a religious man. He had that sanctification of heart which love to God and to man never fails to produce, and which is the fulfilling of the law. His life was imbued and regulated by the influences of pure, deep, abiding, christian principles. A vivid sense of his accountability to his Maker for all his thoughts, words and actions, operated, as a refiner's fire and as fuller's soap, to purify his whole life. This caused him to be looked up to as a guide and main pillar in the church which he had chosen as the scene of his devotions. He met death in the full possession of his reason, and with fortitude and entire submission to the will of his heavenly Father. He appeared to have no choice of his own, but resigned himself into the hands of God, to do with him as he should think best. In his last moments he might have said to his friends, with Addison—" Come and see in what peace a christian can die."

To the Editor of the Boston Medical and Surgical Journal.

Dear Sir,—Will you or some of your readers communicate some permanent remedy for the removal of that disagreeable and often troublesome disease, Gonorrhœa mucosa, and give notice of the same in your truly valuable Journal. By so doing, you will greatly oblige one of your subscribers. Medicus.

Buffalo, N. Y. July 10th, 1835.

Self-Limited Diseases.—Dr. Bigelow's excellent discourse before the Massachusetts Medical Society, on this subject, of which a slight notice was given at the time of its delivery, was received too late for a more extended paragraph the present week. If we consult only our own pleasure, every word of it will be republished in the Journal.

To Correspondents.—Several Communications are deferred till next week.

Whole number of deaths in Boston for the week ending July 18, 23. Males, 17—Females, 6.

Of worms, 1—measles, 1—dropsy on the brain, 2—liver complaint, 1—inflammation of the bowels, 1—bowel complaint, 1—hooping cough, 2—mortification, 1—cancer, 1—scarlet fever, 1—teething, 1—consumption, 1—dysentery, 1—bursting bloodvessel, 1—dropsy, 2—lung fever, 1—dyspepsia, 2—throat distemper, 1—canker, 1.

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May 13. eop6m

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